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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,323	06/26/2006	Jurgen Stauder	PF040008	1975

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EXAMINER	
PATEL, NIRAV G	

ART UNIT	PAPER NUMBER
2624	

MAIL DATE	DELIVERY MODE
11/24/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/584,323	STAUDER ET AL.	
	Examiner	Art Unit	
	Nirav G. Patel	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 October 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

It would be of great assistance to the Office if all incoming papers pertaining to a filed application carried the following items:

1. Application number (checked for accuracy, including series code and serial no.).
2. Group art unit number (copied from most recent Office communication).
3. Filing date.
4. Name of the examiner who prepared the most recent Office action.
5. Title of invention.
6. Confirmation number (See MPEP § 503).

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/22/2009 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. Claim 1 is objected to because of the following informalities: line 7 of claim 1 has two "of" in the sentence "...of the other image of of said set of images...". Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Currently the claim requires that the reference image be chosen from a set which is acquired during a "session" or during a course when multiple images are acquired. However, the specification (Paragraph 21) only describes the set defined as images which "...be the type of scene..." or in Paragraph 12, where the images representative of the same scene are detected for orientation. Having the same scene does not indicate that the images were taken during the session as one image of the same room can be taken days later having different "sessions," therefore the specification does not describe the claim limitation in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. The term "relative" in claim 5 is a relative term which renders the claim indefinite. The term "relative" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The requirement of the claim is not clear as one could not determine if the sub image is the same relative size to the image. For example, how would one image be relatively same compared to another, thus the requirement of the claim does not provide the standard for ascertaining the requisite degree.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Katayama et al. (U.S. Pub. No.: 2005/0046702, "Katayama").

1) Regarding Claim 1, Katayama teaches a method for detecting the orientation of the images in a set of images taken during a session, each image in said set of images containing at least one similar object wherein the method comprises the steps of: choosing a reference image in each set of images from among the set of images taken during the session, which orientation is known a priori (Paragraph 58: At S71 (Fig. 7), a reference coordinate system setting button is provided, which set the coordinate system (orientation) of the camera and thus a image acquired which is acquired after depressing the coordinate system setting button. This orientation is known a priori (as it is set) and is taken during the session, the session commencing after setting the reference coordinate system); and

detecting the orientation of the other images of of said set of images taken during the session as a function of the orientation of the said reference image (Paragraph 58 and Figure 8: The orientation of the reconstruction image (next image in the set of images which are taken during the session, after setting the coordinate system) is determined by rotations relative to the reference coordinate system image (known orientation), therefore the orientation of the reconstruction image (next image in set) is a function (angle rotations) of the orientation of the reference image).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 2 through 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katayama in view of Chiba et al. (U.S. Pat. No.: 6,744,537, "Chiba").

1) Regarding Claim 2, Katayama fails to teach the limitations of claim 2. However Chiba teaches a method comprising a step of calculating the visual distance between the reference image and the said image (Col. 80, Lines 24-26: computing for distances between an input character and candidate characters in the recognition directory is executed).

Incorporating the teachings of Chiba to Katayama's method would allow for a way to quantify how close a reference image is to an inputted image. Therefore it would have been obvious to one of ordinary skill at the time of the invention to apply the teachings of Chiba to Katayama's methods.

2) Regarding Claim 3, Katayama fails to teach the limitations of claim 3. However Chiba teaches a method comprising a step of calculating the visual distance between the said image and the reference image (see analysis of claim 2 above),

the said image and the reference image having undergone a rotation of 90 degrees (Col. 80, Lines : the image direction correcting section checks the rotation angle or mirroring of an image having the highest recognition certainty or highest probability of accurate recognition among the images BG1 to image BG8 shown in Figure 50. The image with the highest certainty or probability (the closest distance between the input and candidate characters as outlined in claim 2 above is given a higher probability/certainty) is selected as the most correctly orientated image. Figure 50, BG 3 is rotated 90 degrees),

the said image and the reference image having undergone a rotation of 180 degrees (Figure 50, BG 8 is rotated 180 degrees),

the said image and the reference image having undergone a rotation of 270 degrees (Figure 50, BG 2 is rotated 270 degrees (-90 or counterclockwise)).

Incorporating the teachings of Chiba to Katayama's method would allow for a way to quantify how close a reference image is to an inputted image when the images are rotated. Different values of the distance between the images are given when the image is rotated a certain way and the rotation which yields the smallest distance would indicated that the image is in the same orientation as the reference. Therefore it would have been obvious to one of ordinary skill at the time of the invention to apply the teachings of Chiba to Katayama's methods.

3) Regarding Claim 4, Katayama fails to teach the limitations of claim 4. However Chiba teaches a method comprising a step of determining a sub image in the reference image and a sub image in the said image, the calculation of the visual distance between the said image and the reference image being performed on the respective sub images (Figure 48: Original image is shown as a full page containing an subimage, BG 5. The rotation and distance is performed on the subimages as outlined in analysis of Claims 2 &3 above (Also seen in Figure 50)).

Incorporating the teachings of Chiba to Katayama's method would allow for the necessary distance calculation as described above to be conducted on the subimage which is where the image data is contained. Therefore it would have been obvious to one of ordinary skill at the time of the invention to apply the teachings of Chiba to Katayama's methods.

4) Regarding Claim 5, Katayama fails to teach the limitations of claim 5. However Chiba teaches a method wherein the said sub images have the same relative

size with respect to the image in which each is positioned (Figures 48 & 50: Figures or original and subimage are same in relative size. Figure 50, the subimages are same as well).

Incorporating the teachings of Chiba to Katayama's method would allow images of the same size to be compared to determine the orientation. If the images are not the same relative size, comparison would be made to irrelevant portions of the images yielding an incorrect orientation determination. Therefore it would have been obvious to one of ordinary skill at the time of the invention to apply the teachings of Chiba to Katayama's methods.

5) Regarding Claim 6, Katayama fails to teach the limitations of claim 6. However Chiba teaches a method wherein the said sub images are centered with respect to the image in which they are positioned (Figure 48: The subimage "F" in BG 1 is centered with respect to the image in which it is positioned).

Incorporating the teachings of Chiba to Katayama's method would allow for a more precise determination of orientation due to the fact that the images would be in the same relative location (centered) as a reference image which are the same relative size (from claim 5). Therefore it would have been obvious to one of ordinary skill at the time of the invention to apply the teachings of Chiba to Katayama's methods.

6) Regarding Claim 7, Katayama fails to teach the limitations of claim 7. However Chiba teaches a method wherein the said sub images are positioned in such a way that the visual distance between the said sub images are minimal (Figure 47: Subimages are positioned as to minimize the distances between set of subimages).

Incorporating the teachings of Chiba to Katayama's method would allow for a more precise determination of the orientation of an image. If the distance between the images is not minimal, inaccurate determinations could be made when considering that an increase in distance between an image which is the correct reference could be interpreted as incorrect compared to an incorrect reference that shortens the distance determined by moving the image itself closer to the sample image. Therefore it would have been obvious to one of ordinary skill at the time of the invention to apply the teachings of Chiba to Katayama's methods.

7) Regarding Claim 8, Katayama fails to teach the limitations of claim 8. However Chiba teaches a method wherein it furthermore comprises a step of selecting the said reference image as a function of the distance between this reference image and the target image (Col. 80, Lines 28-30: a candidate character (reference image) having the minimum distance is recognized as a final candidate (target image) for the inputted character).

Incorporating the teachings of Chiba to Katayama's method would allow for a better selection of a reference image. Selecting an image which is a function of the distance between both images can allow for a better reference to be selected, which would essentially be closer due to the fact that if it is further apart, it may be concluded after distance measurements are made that the image is not in the same orientation as the reference even though in reality it may. Therefore it would have been obvious to one of ordinary skill at the time of the invention to apply the teachings of Chiba to Katayama's methods.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nirav G. Patel whose telephone number is (571)270-5812. The examiner can normally be reached on Monday - Friday 8 am - 5 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 571-272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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